Amendments to the Claims:

This listing of claims will replace prior versions, and listings of claims in the application.

Claim 1. **(Currently Amended)** A method comprising:

attaching a secure router advertisement to an address update associated with a mobile node, <u>wherein the secure router advertisement includes a nonce field populated with a home address of the mobile node</u>; and

sending the address update including the attached secure router advertisement to a correspondent node.

Claim 2. **(Original)** The method of claim 1 wherein the address update includes a Mobile IPv6-compliant binding update.

Claim 3. **(Original)** The method of claim 1 wherein the address update is sent by a node acting as a representative of the mobile node.

Claim 4. **(Original)** The method of claim 1 further comprising:

sending a secure router solicitation to one or more access routers; and

receiving the secure router advertisement, responsive to the secure router solicitation.

Claim 5. **(Original)** The method of claim 1 further comprising:

sending a secure router solicitation to one or more access routers, the secure router solicitation including an identifier of the mobile node; and

receiving the secure router advertisement responsive to the router solicitation, the secure router advertisement including the identifier of the mobile node.

Claim 6. **(Original)** The method of claim 1 wherein the mobile node is associated with a home address and further comprising:

sending a secure router solicitation to one or more access routers, the secure router solicitation including the home address of the mobile node; and

receiving the secure router advertisement responsive to the router solicitation, the secure router advertisement including the home address of the mobile node.

Claim 7. **(Original)** The method of claim 1 further comprising:

sending a router solicitation to one or more access routers, the secure router solicitation including a public key associated with the mobile node; and

receiving the secure router advertisement responsive to the router solicitation, the secure router advertisement including the public key.

Claim 8.   (Original)   The method of claim 1 wherein the secure router advertisement includes a signature of an access router associated with an access network, wherein the mobile node may receive one or more messages at an address that belongs to the access network of the access router.

Claim 9.   (Original)   The method of claim 1 wherein the secure router advertisement includes a signature of an access router associated with an access network, wherein a representative of the mobile node may receive one or more messages at an address that belongs to the access network of the access router.

Claim 10.   (Original)   The method of claim 1 wherein the mobile node is associated with a cryptographically-generated address generated by a public key and the secure router advertisement includes the same public key.

Claim 11-12.   (Canceled)

Claim 13.   (Original)   The method of claim 1 wherein the secure router advertisement includes a nonce field populated with a public key associated with the mobile node.

Claim 14.   (Original)   The method of claim 1 wherein the mobile node is associated with a current address within an access network and the address update specifies the current address of the mobile node.

Claims 15-46.   (Canceled)

Claim 47.   (Currently Amended)   A method comprising:

receiving an address update from a mobile node, the address update including a secure router advertisement, a purported identifier of the mobile node, and a purported current address, <u>wherein at least the purported identifier of the mobile node is included in the nonce field of the secure router advertisement</u>;

verifying that the secure router advertisement is signed by an authorized access router;

verifying that the purported current address is associated with the authorized access router; and

verifying the association between the purported identifier and the purported current address using data from the secure router advertisement.

Claim 48.   (Canceled)

Claim 49. **(Original)** The method of claim 47 wherein the address update is a Mobile IPv6 binding update.

Claim 50. **(Original)** The method of claim 47 wherein the purported identifier is a Mobile IPv6 home address.

Claim 51. **(Original)** The method of claim 47 wherein the current address is a Mobile IPv6 care-of address.

Claim 52. **(Original)** The method of claim 47 wherein the operation of verifying the association between the purported identifier and the purported current address comprises:

reading an identifier from the secure router advertisement; and

verifying that the purported identifier matches the identifier read from the secure router advertisement.

Claim 53. **(Original)** The method of claim 47 wherein the operation of verifying the association between the purported identifier and the purported current address comprises:

reading a home address from the secure router advertisement; and

verifying that the purported identifier matches the home address.

Claim 54.   **(Original)**   The method of claim 47 wherein the purported identifier is a cryptographically-generated address associated with the mobile node and the operation of verifying the association between the purported identifier and the current address comprises:

reading a public key from the secure router advertisement; and

verifying that the same public key was used to generate cryptographically-generated address.

Claim 55.   **(Original)**   The method of claim 47 wherein the authorized access router is associated with a subnet prefix specified in the secure router advertisement and the operation of verifying that the purported current address is associated with the authorized access router comprises:

verifying that the purported current address matches subnet prefix.

Claim 56.   **(Original)**   The method of claim 47 wherein the operation of verifying that the secure router advertisement is signed by an authorized access router comprises:

verifying that a signature used to sign the secure router advertisement is associated with an access router authorized by certification to advertise a subnet prefix specified in the secure router advertisement.

Claims 57-85. **(Canceled)**

Claims 86. **(Currently Amended)** A computer ~~program product~~ readable medium encoding a computer program for executing on a computer system a computer process, the computer process comprising:

generating a secure router advertisement data structure, wherein a nonce field of the a secure router advertisement data structure contains a member of a set containing an IPv6 address, a home address, an identifier, a group identifier, a cryptographic identifier, and a public key.